March 20, 1945. A. MOSKOWITZ 2,371,703

SHOE AND METHODS OF MANUFACTURING THE SAME

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Fig. 1.

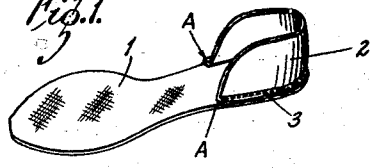


Fig. 2.

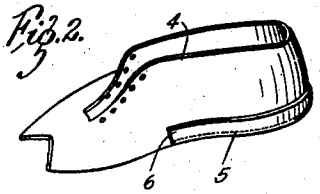


Fig. 4.

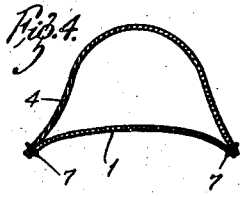


Fig. 3.

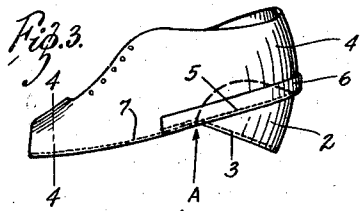


Fig. 5.

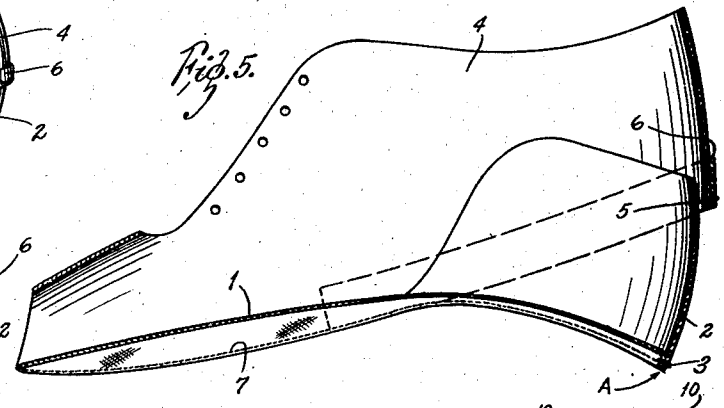


Fig. 7.

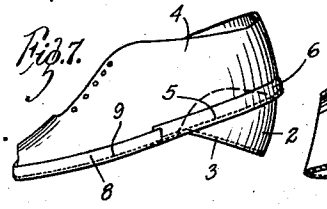


Fig. 6.



Fig. 8.

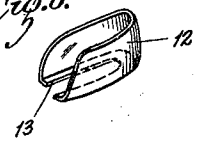


Fig. 11.

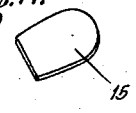


Fig. 9.

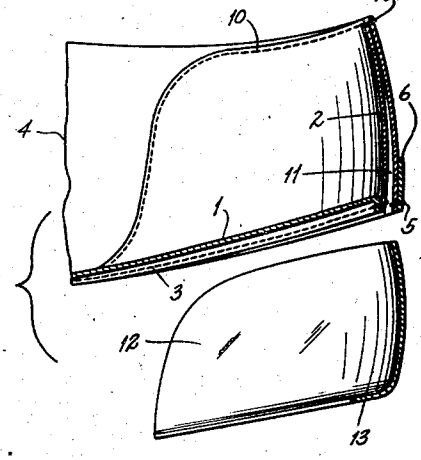


Fig. 12.

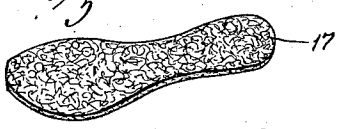


Fig. 13.

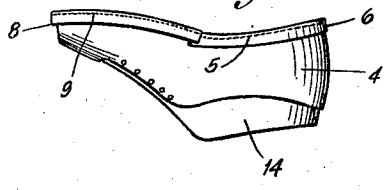
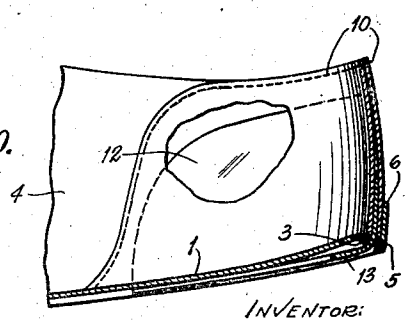


Fig. 10.



INVENTOR:
ABRAM MOSKOWITZ,

BY Lawrence H. Cohn

ATTORNEY.

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SHOE AND METHODS OF MANUFACTURING THE SAME

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Fig. 14.

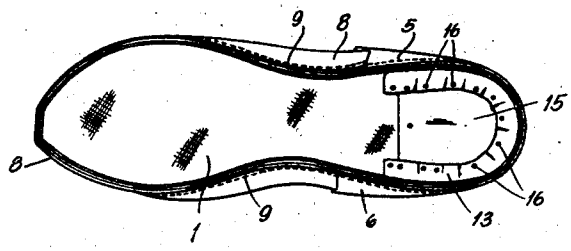


Fig. 15.

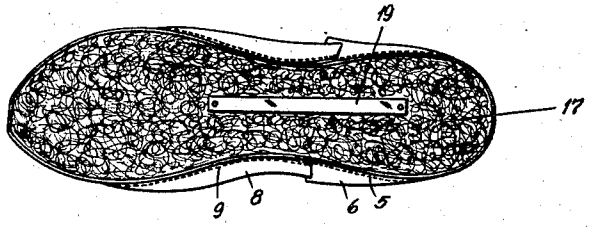


Fig. 16.

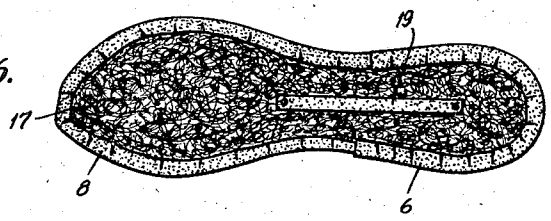


Fig. 20.

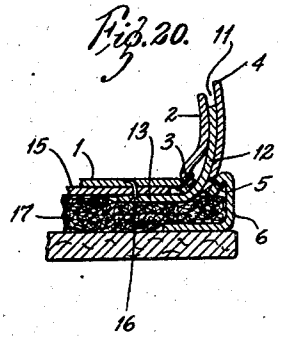


Fig. 17.

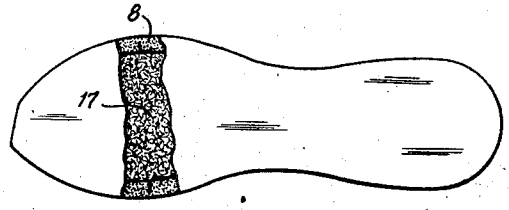


Fig. 18.

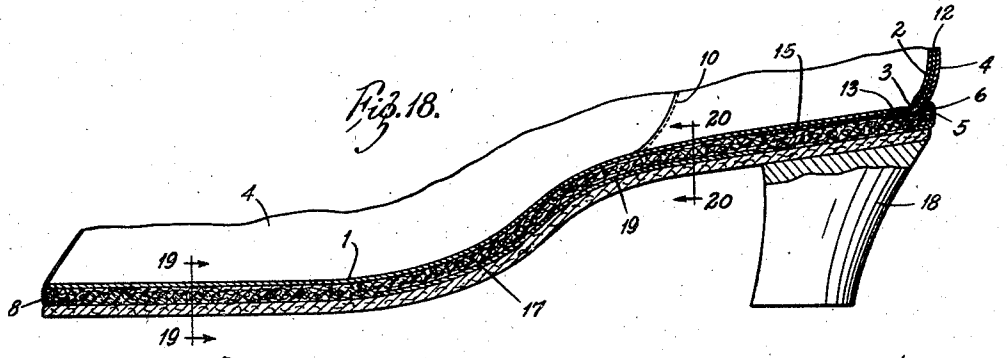
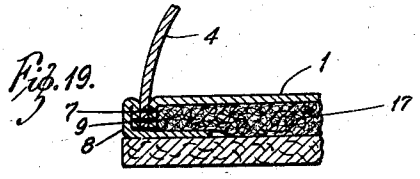


Fig. 19.



INVENTOR:
ABRAM MOSKOWITZ,

BY Lawrence R. Cohen

ATTORNEY.

Patented Mar. 20, 1945 2,371,703

UNITED STATES PATENT OFFICE

2,371,703

SHOE AND METHOD OF MANUFACTURING THE SAME

Abram Moskowitz, St. Louis, Mo., assignor to Milius Shoe Co., St. Louis, Mo., a corporation of Missouri

Application June 14, 1944, Serial No 540,342

15 Claims. (Cl. 36—19.5)

My invention relates to improvements in shoes and methods of manufacturing the same, and has particular reference to improvements in shoes of so-called "slip-lasted" or "envelope" construction.

The "slip-lasted" process differs from others chiefly in that the carcass or body of the shoe is fabricated without the use of a last. Whereas in other methods the shoe body is formed over a last and such device is relied upon to shape and to determine the measurements of the shoe, in the method under present consideration a last is inserted into a pre-formed shoe body, and is employed principally to facilitate the securement thereto of certain sole members.

The slip-lasted process affords a number of important advantages, among which may be mentioned that it is relatively a simpler and more economical process; it eliminates the need of using certain complicated and expensive machinery, such as the pulling-over and lasting machines, and not as highly skilled workers are required in order to turn out good quality shoes. The process effects a saving in the relatively expensive upper materials, since the lasting allowance margin is eliminated. Moreover, shoes of this construction have extraordinarily good fitting quality and are exceptionally comfortable.

Although embodying these outstanding advantages, nevertheless the "slip-lasted" construction has generally been limited to women's open-back models, chiefly because the process as heretofore practiced did not lend itself to the use or provision of a stiff counter member. The conventional counter member is quite rigid and has a molded turned-in lower margin or flange by which it is adapted to be anchored to the sole assembly. Such a member is essential to provide stiffness and shape-retaining properties in the heel region around the back of the shoe, and to afford lateral support for the heel of the wearer. The "slip-lasted" process as heretofore known is not suited to the use of a rigid, flange anchored counter.

The principal object of the present invention is to provide an improved, rigid, back or counter construction in a shoe of "slip-lasted" type.

Another object is to provide an improved method of making closed back "slip-lasted" shoes, involving the use therein of a stiff counter member having a turned-in marginal flange firmly anchored to a sole member.

These and other objects and advantages of the improved construction and shoe making process of the present invention will appear from the following description and from the accompanying drawings showing the parts of the shoe in various stages of assembly.

In the drawings:

Fig. 1 is a perspective view of combined insole and counter-lining members;

Fig. 2 is a perspective view of combined upper and rear cover strip members;

Fig. 3 is a perspective view showing the members of Figs. 1 and 2 in assembled and attached relation;

Fig. 4 is a transverse sectional view taken at line 4—4 of Fig. 3;

Fig. 5 is a longitudinal sectional view, somewhat enlarged, of the assembly illustrated in Fig. 3;

Fig. 6 is a perspective view of a forward cover strip;

Fig. 7 shows the manner in which the strip of Fig. 6 is applied and secured to the assemblage of Fig. 3;

Fig. 8 is a perspective view of a counter member;

Fig. 9 is a sectional showing of the rear portion of the assemblage of Fig. 7, with the counter-liner secured to the upper, and the counter in position for insertion into the said assemblage;

Fig. 10, a sectional view, illustrates the assemblage of Fig. 9 with the counter in place;

Fig. 11 illustrates a heel tab or plate;

Fig. 12 illustrates an intermediate sole or platform member;

Fig. 13 is a side view of the partly assembled shoe, mounted on a last;

Fig. 14 is a bottom plan view of the assembly appearing in Fig. 13;

Fig. 15 is a bottom plan view showing the platform member in place;

Fig. 16 illustrates the platform bottom with the cover strips drawn about the edges and secured to the margin thereof;

Fig. 17 is a bottom view with the outer sole in place;

Fig. 18 is a longitudinal section of the finished shoe;

Fig. 19 is a transverse section taken at line 19—19 of Fig. 18, and

Fig. 20 is a transverse section taken at line 20—20 of Fig. 18.

Referring now by characters of reference to the drawings which illustrate a practical embodiment of my invention, both as to method of manufacture and shoe construction, an early step in the process comprises assembling and at-

taching together an insole or sock lining member 1 and a quarter lining or counter covering member 2, to produce the assembly illustrated in Fig. 1. The member 1 may consist of an appropriately shaped piece of thin, pliable leather or fabric and may be suitably reinforced in areas that receive the greatest wear or where heavier "body" is desired, as by means of gummed fabric, paper or other material. The counter cover 2 likewise is most desirably produced from thin pliable leather or fabric stock, and the lower marginal edge thereof is turned outwardly as shown, and attached by stitching 3 to the margin of the heel portion of the insole 1, this operation being quickly and efficiently accomplished in a sewing machine of conventional type.

Also, in the early stages of the process, an upper 4 is produced in the customary manner, and to this member is attached, by stitching 5, a strip 6 of fabric or leather or other flexible material. Strip 6, also referred to as a binding strip, or rear platform cover strip, extends rearwardly from the shank or midsection at one side of the lower margin of member 4, around the heel part, and terminates at a corresponding point at the opposite side thereof. The cover strip 6 is preferably attached to the upper 4 with its outer or finished surface disposed inwardly to face the outer surface of the upper, so that when the said strip is inverted or turned down, as will be subsequently explained, the finished surface thereof will be on the outside. For purposes of convenience and clarity of illustration the upper 4 is represented herein as being an integral, single-ply member. In practice, however, for reasons of economy, the upper 5 will most usually consist of an assembly of separately cut vamp and rear quarter portions, all or parts of which may have liners, edge bindings, etc. If desired the rear cover strip 6 may be initially attached in the described manner to a separate rear-quarter portion of the upper, and the vamp or other complementary upper portions thereafter suitably attached to the rear quarter. In any event an assembly of the character illustrated in Fig. 2 is preferably completed prior to the attachment of any of its components with other parts of the shoe.

In a following operation the insole and counter liner assembly of Fig. 1, and the upper and rear cover strip assembly of Fig. 2 are combined and stitched together to produce the assembly illustrated in Fig. 3. In this step the insole 1 is arranged so that at least its fore-part forms a bottom for the upper assembly, and the complementary margins of these parts are secured together by stitching 7 with the upper marginal face of insole 1 contacting the inner marginal face of the upper 4, as best appears in the sectional view of Fig. 4. Of importance is the fact that the stitching 7 is not continued completely around periphery of the upper, but extends only around the forepart of and along the shank regions, terminating substantially at the points designated A, Figs. 1 and 3, at or near the juncture of the forward edges of the counter liner 2 with the insole. Thus, at this stage, the rear edge of the insole, such as is embraced by the counter liner, is free of the upper, such condition being indicated by the relatively displaced relationship of counter liner and upper in Figs. 3, 5 and 7.

The mutual attachment of the parts as heretofore described is most conveniently accomplished by means of a more or less conventional sewing machine, and, of course, without having the parts mounted on a last. It will be understood that the upper and insole members, in fact all of the parts, are properly and accurately cut to accord with size standards, with due consideration given to the requirements for stitching allowance. Thus, in the method described herein the shoe size is not predominantly determined or controlled by the dimensions of a last and the skill of the lasting-machine operator. It is generally conceded that the present method conduces to greater accuracy and a closer conformity to size standards than the former method.

Continuing now with the description, the forward cover strip 8, illustrated in Fig. 6 is applied and secured by stitching 9 to the forward portion of the upper and insole members to produce the assembly shown in Fig. 7. As appears therein the ends of the forward cover strip preferably overlap the ends of rear cover strip. As a following step, although one which may with equal advantage come later in the assembly process, the counter cover 2 is secured along its top and forward side margins to the upper 4 by a row of stitches 10 (Fig. 9). There is thus produced a pocket or recess, indicated at 11 (Fig. 9), that extends about the heel area of the upper assembly and is defined between the counter cover 2 and the rear quarters of the upper, such pocket having the general shape or contour of a conventional stiff counter 12 shown in Fig. 8. The counter 12 is provided with a coating of cement or other suitable adhesive, preferably applied to both sides thereof, and the member is then inserted into the pocket 11 and caused to adhere to the counter cover 2 and upper 4, as shown in Fig. 10. This view well illustrates the manner in which the counter extends through the opening afforded by the unconnected margins of the insole and counter liner assembly, and the upper member, and how the turned-in bottom flange 13 of the counter marginally underlies the heel part of the insole.

The shoe body as thus far described is now fitted onto a suitable last 14 preparatory to the securement thereto of the sole and heel members. Before applying such members, however, a heel plate 15 of fibre or other stiff material, shown in Fig. 11, is installed in the body assembly, preferably adjacent the under surface of the insole and with its margins extending between the insole and the counter flange 13, as best appears in Figs. 14 and 20. The heel plate 15 provides a solid body member that affords firm anchorage for the counter 12, the flanges 13 of which are securely fastened to the plate 15 by tacks 16, augmented by cement if desired, plate 13 also affording a suitable member to receive heel-securing nails or screws, if such are employed. Furthermore, plate 15 prevents undue spreading of the opposite sides of the counter and aids that member in holding the rear quarter in proper shape.

The assembly is now ready to receive an intermediate sole or platform 17 which is semi-flexible and may be formed of felt, cork, or a composition of light-weight materials. In the present example the platform 17 extends the full length of the insole. For certain types of shoes it may be desirable to eliminate the heel portion of the platform, in which case the heel member 18 (Fig. 18) would directly engage the plate 15.

Platform member 17 is provided at its upper surface with a coating of a suitable adhesive and

then is fitted to and pressed against the insole and heel plate to cause its firm attachment to these members. The cover strips 6 and 8 are then turned downwardly and drawn about the sides of the platform, and are secured by cement to the bottom margins of that member, as shown in Fig. 16. If the shoe structure is styled and designed for a Cuban heel, as suggested by the present disclosure, a metal shank stiffener 19 is suitably attached to the lower face of the platform 17 and this may be done either before or after the platform member is installed. Where a wedge heel is provided the stiffener 19 may be eliminated.

In the concluding operations an outsole 20 is attached to the platform member and to the turned-in margins of the cover strips 6 and 8, cement being preferably employed to effect the union of these parts, and the heel 18 is properly seated and secured in place by conventional means.

I have set forth herein by illustration and description an example of how my invention may be put into practical use to improve the construction and methods of fabricating "slip-lasted" shoes. It will be understood that various changes and modifications may be made in the process described herein, that certain parts may be omitted and others added, and that the sequence of the operations may be varied, without departing from the spirit and full intendment of the invention.

What I claim as my invention and desire to secure by Letters Patent is:

1. In a shoe, the combination of an inner sole, a platform and an outer sole in laminar relation, a stiff counter having a turned-in flange extending between the innersole and platform, a counter liner, stitching securing the heel margin of the inner sole to the bottom margin of said counter liner, and a platform cover strip having its top margin stitched to the lower margin of said upper and its lower margin underlying and adhesively secured to the platform.

2. In a shoe, the combination of an insole, a platform and an outer sole in laminar relation, a relatively stiff counter having an integral flange extending inwardly between the insole and platform members, a counter liner marginally stitched at its lower edge to the heel margins of said insole, an upper adhesively secured to the outer face of said counter, a platform cover strip marginally stitched to the lower margin of said upper, said cover strip extending about the edge of said platform and having its lower margin adhesively secured between the platform and outer sole.

3. In a shoe, an inner sole, a counter liner marginally secured to the heel margin of said inner sole, an upper having a heel portion in which said counter liner is disposed, a platform cover strip stitched to the bottom margin of said upper, a stiff counter laminated between said counter liner and upper, said counter having a bottom flange extending below said inner sole, a platform member and an outer sole in underlying relation to said inner sole, said platform cover strip extending about the edge of said platform and being marginally secured between the platform and outer sole.

4. In a shoe, an upper having a forepart and a heel part, a sole liner having a sole part and a heel part, means marginally securing the forepart of said upper to the forepart of said liner, the heel part of said upper being marginally unattached to the heel part of said liner, a counter liner disposed within the heel part of said upper, means marginally securing the heel part of said sole liner to the lower edge of said counter liner, means marginally securing the upper edge of said counter lining to said upper, and a rigid counter disposed between the heel part of said upper and said counter liner, said counter having a marginal flange underlying the heel part of said sole liner.

5. In a shoe, an upper having a forepart and a heel part, a sole liner having a forepart and a heel part, stitching marginally securing said upper forepart to said sole liner forepart, the heel part of said upper being unattached at its lower edge to the sole liner, a counter liner disposed within the heel part of said upper, stitching securing the top margin of said counter liner to said upper and the bottom margin of said counter liner to the heel part of said sock liner, a relatively rigid counter disposed between said counter liner and the heel part of said upper, said counter having an integral flange underlying the heel part of said sole liner.

6. In a shoe, an upper, a sole liner, a counter liner, stitching securing the forepart of said upper to the forepart of said sole liner, stitching securing rear part of said sole liner to the bottom margin of said counter liner, the rear part of said sole liner being unattached to the rear part of said upper, a counter disposed between said counter liner and said upper, said counter having an integral flange extending beyond the stitched junction of said liners and below said sole liner, a platform member underlying said sole liner, and outersole and heel structure underlying said platform member, and platform covers extending around the edge of said platform, said cover strips extending along the entire lower margin of said upper and being stitched thereto.

7. In a shoe, an insole, a counter liner marginally secured to the heel margin of said insole, an upper, a relatively stiff counter disposed between the counter liner and upper, adhesive means interposing the adjacent surfaces of said upper and counter, said counter having a bottom flange extending inwardly beyond the lower edge of said upper and underlying said insole, a platform in underlying relation to the insole and said counter flange, a platform cover strip stitched to the lower edge of said upper, extending about the edge of said platform and adhesively secured to the bottom surface thereof, and a wear-receiving means underlying said platform.

8. In a shoe, an insole, a counter liner marginally stitched to the heel margin of said insole, an upper, a binding strip stitched to the lower heel margin of said upper, a stiff counter extending between and adhesively secured to said upper and counter liner, said counter having an integral bottom flange underlying said insole, a relatively stiff heel plate underlying said insole and secured to said counter flange, a platform member underlying said heel plate, said binding strip extending about the edge of and being secured to the under surface of said platform member, and a wear-receiving member underlying said platform member.

9. In the manufacture of "slip-lasted" shoes, the process which includes the steps of: marginally sewing a counter liner to an inner sole, sewing the forepart only of said inner sole to an upper, the marginal portion of said inner sole which is attached to said counter liner being unattached to said upper, stitching front and

rear parts of a platform cover strip to the bottom margin of said upper, applying adhesive to a stiff counter member and inserting said member between said counter liner and said upper, and thereafter mounting said assembly on a last for application thereto of an outer sole member.

10. In the manufacture of slip lasted shoes, the process including the steps of: sewing the lower margin of a counter liner to the rear margin of an inner sole, sewing a platform cover strip to and about the heel margin of an upper, sewing together the forepart margins of said inner sole and upper, and leaving these members relatively discrete in the heel regions thereof, sewing the top margins of said counter liner to said upper, inserting a stiff counter member into the pocket formed between said counter liner and upper and adhesively securing said counter thereto, and thereafter mounting the assembly, aforesaid on a last for subsequent operations.

11. In the manufacture of slip-lasted shoes, the process which includes, stitching together the foreparts only of an upper and an inner sole, stitching front and rear portions of a platform cover strip to the bottom margin of said upper, adhesively securing a stiff counter having an inturned flange to the inner surface of said upper, with said flange underlapping said inner sole, mounting the described assembly on a last, securing a platform member onto the said assembly, drawing said cover strip portions about the edge of said platform, and adhesively securing said strips to the under surface of said platform, and thereafter securing a sole member to said platform.

12. In the manufacture of slip-lasted shoes, the process which includes the steps of, sewing a counter liner to an inner sole, sewing the forepart of said inner sole to the forepart of an upper, the part of said insole to which said counter liner is attached remaining free of said upper, sewing platform cover strips to the fore part and rear part of said upper, inserting between said counter liner and said upper, a counter having an inturned bottom flange with the said bottom flange underlying said inner sole, adhesively securing the opposite faces of said counter to the inner surfaces of said counter liner and said upper, mounting the assembly aforesaid onto a last, adhesively securing a platform member to said inner sole, drawing said cover strips about the edges of said platform and securing them to the under-surface thereof, and thereafter attaching an outer sole to said platform.

13. The method of constructing a shoe which includes the steps of stitching the lower margin of a counter liner to the heel margin of an insole, stitching a platform cover strip to the lower margin of an upper, stitching together only the foreparts of said insole and said upper, inserting a stiff counter member between the counter liner and upper and adhesively securing said upper to said counter, mounting the assembly aforesaid on a last, securing a platform member thereto in underlying relation to the inner sole, drawing the platform cover strip about the edge of said platform and securing the strip to the bottom surface thereof, and thereafter applying an outer sole to said platform.

14. In the manufacture of slip-lasted shoes, the steps which consist of, sewing the forward portion of an inner sole and a platform cover to an upper adjacent its lower edge forwardly of the heel regions of said upper, with the upper surface of said inner sole contacting the inner surface of said upper, and with the outer surface of said platform cover contacting the outer surface of said upper, sewing the lower edge of a counter liner to the rear portions of said inner sole, sewing a rear platform cover portion to the lower edge of said upper in the heel region thereof, with the outer face of said upper contacting the outer face of said rear cover portion, thereafter inserting and adhesively securing a stiff counter between and to said upper and said counter liner, mounting the assembly aforesaid on a last, securing a platform to said insole turning said cover portions about the edges of said platform and securing them to the under surface thereof, and thereafter securing an outer sole to said platform.

15. In the manufacture of "slip-lasted" shoes, the steps including, stitching the lower edge of a counter cover to the rear portion of an inner sole, stitching platform cover portions to and completely around the lower edge of an upper, with the outer faces of said portions contacting the outer face of said upper, stitching the edge of said inner sole forwardly of said counter liner to the forward portion of said upper, stitching the upper edge of said counter liner to said upper, thereafter inserting and adhesively securing a stiff counter, having an inturned bottom flange, between and to the inner faces of said upper and said counter liner, with said counter flange in underlying relation to said inner sole, mounting the assembly aforesaid on a last, securing a heel plate to the bottom flanges of said counter, securing a platform to the bottom surfaces of said insole and heel plate, drawing said platform cover portions about the edges of said platform and adhesively securing them to the under surface thereof, and thereafter securing sole and heel members in underlying relation to said platform.

ABRAM MOSKOWITZ.